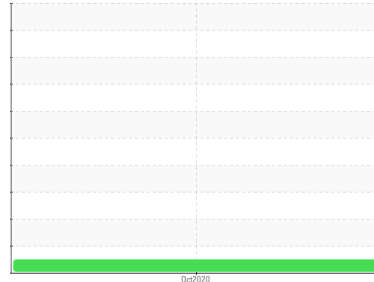




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
Bear Creek
 Machine Id
BCR-09
 Component
Wind Turbine Gearbox
 Fluid
FUCHS RENOLIN UNISYN CKC ISO 320 (--- GAL)

DIAGNOSIS

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|----------|----------|
| Sample Number | Client Info | | | WC05152183 | --- | --- |
| Sample Date | Client Info | | | 16 Oct 2020 | --- | --- |
| Machine Age | hrs | Client Info | | 0 | --- | --- |
| Oil Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | Client Info | | | N/A | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >30 | 1 | --- | --- |
| Chromium | ppm | ASTM D5185m | >3 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185m | >3 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Silver | ppm | ASTM D5185m | | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >30 | 0 | --- | --- |
| Lead | ppm | ASTM D5185m | >15 | <1 | --- | --- |
| Copper | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Tin | ppm | ASTM D5185m | | 0 | --- | --- |
| Antimony | ppm | ASTM D5185m | | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| Cadmium | ppm | ASTM D5185m | | 0 | --- | --- |

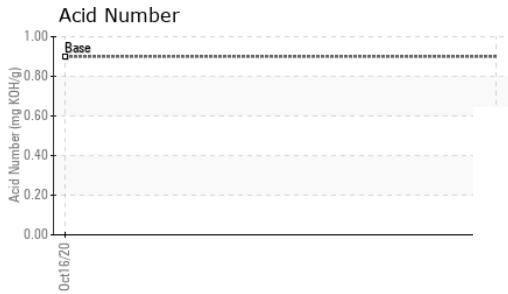
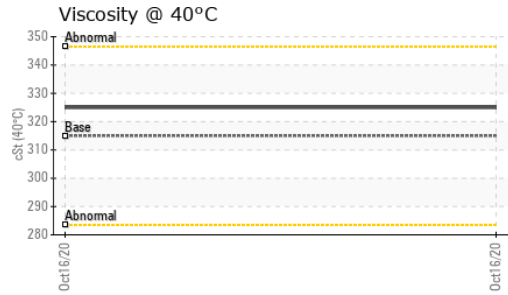
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|-------------|----------|----------|
| Boron | ppm | ASTM D5185m | 25 | 3 | --- | --- |
| Barium | ppm | ASTM D5185m | | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | 0 | --- | --- |
| Manganese | ppm | ASTM D5185m | | 0 | --- | --- |
| Magnesium | ppm | ASTM D5185m | | 0 | --- | --- |
| Calcium | ppm | ASTM D5185m | 17 | 4 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 200 | 138 | --- | --- |
| Zinc | ppm | ASTM D5185m | | 0 | --- | --- |
| Sulfur | ppm | ASTM D5185m | 5000 | 3147 | --- | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >+15 | <1 | --- | --- |
| Sodium | ppm | ASTM D5185m | | 0 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 0 | --- | --- |

| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.02 | NEG | --- | --- |
| Free Water | scalar | *Visual | | NEG | --- | --- |



OIL ANALYSIS REPORT

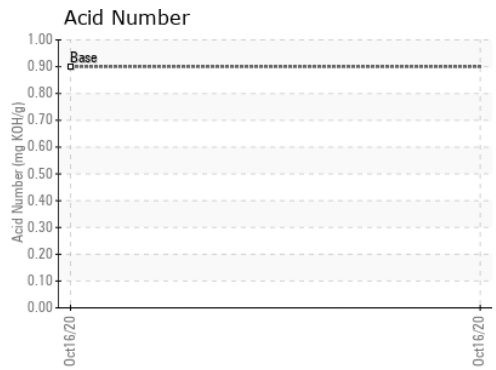
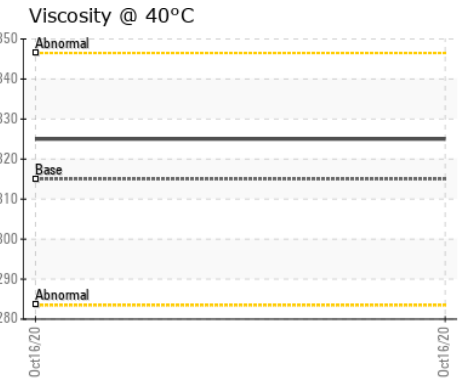
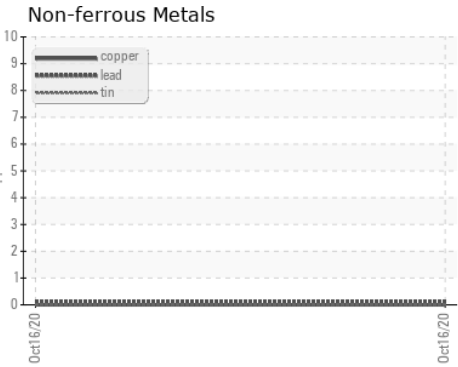
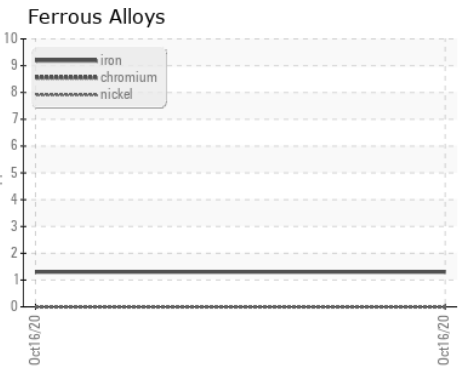


| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|-----------|------------|------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 315 | 325 | --- | --- |

| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |
|---------------|--|--------|------------|---------|----------|----------|
|---------------|--|--------|------------|---------|----------|----------|

| | | | | | | |
|--------|--|--|--|--|----------|----------|
| Color | | | | | no image | no image |
| Bottom | | | | | no image | no image |

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC05152183 **Received** : 08 Jan 2021
Lab Number : **05152183** **Diagnosed** : 02 Oct 2023
Unique Number : 9312463 **Diagnostician** : System
Test Package : IND 2 (Additional Tests: KF, PQ, PrtCount)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

WEARCHECK USA

501 Madison Ave
Cary, NC
US 27513

Contact: CATHERINE ANASTASIO
CANASTASIO@WEARCHECKUSA.COM

T:
F: (919)379-4050